

Catalogue of American Amphibians and Reptiles.

COLE, CHARLES J. 1968. *Sceloporus virgatus*.

Sceloporus virgatus H. M. Smith
Striped plateau lizard

Sceloporus undulatus virgatus Smith, 1938: 11. Type-locality, "... above Santa Maria Mine, El Tigre Mountains, Sonora, Mexico ..." Holotype, Univ. Michigan Mus. Zool. 81912, a male, collected by Berry Campbell on 27 June 1935 (Charles F. Walker, in litt.). The El Tigre Mountains are referred to as the "Sierra de la Madera" on many maps of Sonora.

Sceloporus virgatus: Cole, 1963: 413. Elevation to specific rank.

• CONTENT. No subspecies have been proposed.

• DEFINITION. This is a small species of the *undulatus* group (Smith, 1938; 1939). Females attain a maximum body (snout-vent) length of nearly 70 mm, and males attain about 60 mm. Approximate means (and ranges) of selected characteristics are: tail length/body length of females, 1.29 (1.02–1.49), of males, 1.40 (1.13–1.72); number of dorsal scales, 38.7 (34–43); number of scales around midbody, 43.8 (36–48); total number of femoral pores, 27.9 (22–34). Usually the femoral-pore scales bear a posterior notch in which the pore is located.

Individuals of both sexes lack the conspicuous, ventral blue abdominal patches that occur in either one or both sexes of the other species and subspecies in the *undulatus* group. Characteristically there are, in life, (1) a distinct dorsolateral yellowish-white stripe, (2) a distinct lateral pinkish-white stripe (white or cream in preservative), (3) a distinct, uniform dark brown band between the dorsolateral and lateral light stripes, and (4) a distinct dark brown stripe ventral to the lateral pinkish-white stripe. In addition, there are usually seven to ten pairs of dark brown and white, or only dark brown, dorsal spots. In both sexes the ventral color is white or cream, with a small blue patch on each side of the throat. In gravid females, the gular patches are orange, or surrounded by orange.

• DESCRIPTIONS. A thorough description of the holotype was presented by Smith (1938). Color pattern or variation in particular features of scutellation, or both, were discussed in detail by Smith (1938; 1946) and Cole (1963). Stebbins (1966) provided a brief but conveniently general description of the color pattern. Williams (1960) first described the notches in the femoral-pore scales, which subsequently were found to be characteristic of the species (Cole, 1963). Dimensions of freshly deposited eggs (laboratory) were provided by Gehlbach (1956) and Cole (1963), and the extent of development of embryos at the time of egg deposition of captives was briefly described by Cole (1963). Cole and Lowe (1968) described the karyotype ($2n = 22$), and a chromosomal aberration.

• ILLUSTRATIONS. Black-and-white photographs of adult males and females from the Chiricahua Mountains, Cochise County, Arizona, were published by Smith (1946: 235; dorsal, ventral, and lateral views) and by Cole (1963: 414; dorso-lateral view). Stebbins (1966: plate 22) presented a very accurately colored illustration. Cole (1963: 414) illustrated the notched femoral-pore scales of *S. virgatus*, comparing them with the un-notched femoral-pore scales of *S. undulatus consobrinus*. The karyotype was illustrated by Cole and Lowe (1968).

• DISTRIBUTION. *Sceloporus virgatus* occurs in western Chihuahua and eastern Sonora in Mexico, and in southeastern Arizona (Cochise County) and southwestern New Mexico (Hidalgo County) in the United States. The range in the United States is confined to the Chiricahua Mountains (Arizona), the Peloncillo Mountains (Arizona and New Mexico), the Guadalupe Mountains (New Mexico), and the Animas Mountains (New Mexico).

The distribution of *S. virgatus*, particularly in the northernmost part of its range, consists of geographically isolated montane "island" populations, resulting from its apparent habitat specificity. The species abounds in the pine-oak

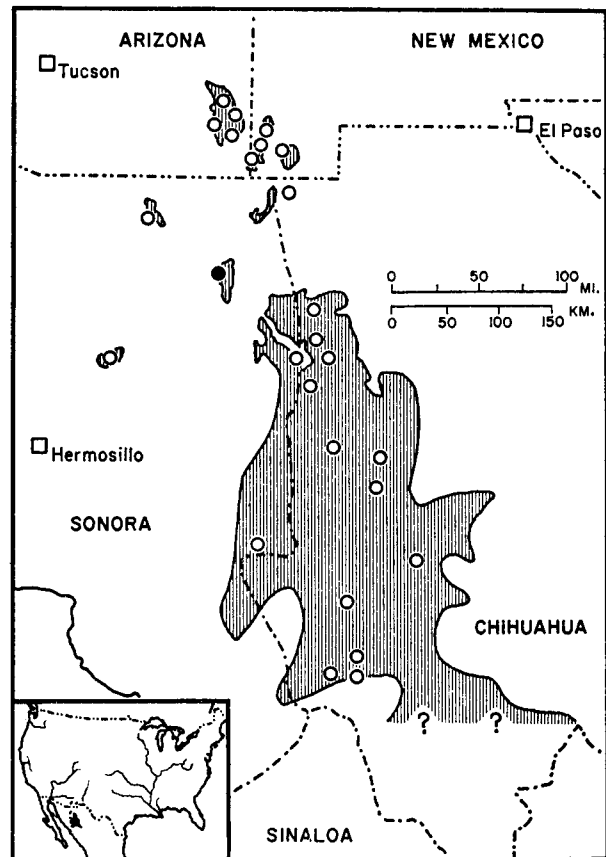
zone (as used by Marshall, 1957), elevationally ranging from about 5,300 to 7,000 feet in the United States. It also occurs in riparian oak woodland in canyons as low as ca. 5,000 feet elevation, and occasional individuals are found in coniferous forest as high as ca. 9,600 feet elevation in the Chiricahua Mountains (Robinson, 1968).

The distributional limits are known best in the United States (Cole, 1963). The southernmost distributional limit in Mexico is not known with confidence.

• FOSSIL RECORD. None.

• PERTINENT LITERATURE. Cole (1963) compared various characteristics of *Sceloporus virgatus* with those of *Sceloporus undulatus consobrinus* and *Sceloporus undulatus tristichus* from geographically nearby localities. He also reported data on reproduction, including the relationship of number of eggs per clutch to body length of individual females, time of egg deposition in the field, and time of appearance of hatchlings in the field. Stebbins (1966) and Lowe (1964) concisely described the habitat of *S. virgatus*. Licht (1965) reported the preferred (laboratory) body temperature of *S. virgatus* and discussed its relationship to testicular heat sensitivity; a histological section of a *S. virgatus* testis was illustrated (p. 433). Etheridge (1964) employed skeletons of *S. virgatus* along with those of numerous other species, in discussing relationships of the sceloporine iguanids. Stebbins (1963) and Stebbins and Eakin (1958) reported on the influence of the parietal eye on the behavior of *S. virgatus*. Dawson and Poulson (1962) discussed the oxygen capacity of blood from a variety of species of lizards, including *S. virgatus*. Taylor and Knobloch (1940) reported the occurrence of *S. virgatus* in Chihuahua.

• NOMENCLATURAL HISTORY. Prior to 1938, populations of *S. virgatus* were referred to *Sceloporus consobrinus* or *Scelop-*



MAP. Solid circle designates type-locality. Hollow circles indicate other localities. Shading approximates lowermost distribution of pine-oak zone (see Leopold, 1950; Marshall, 1957) in the mountains known to be occupied by *S. virgatus*. Question marks signify uncertain southern distributional limits.

orus undulatus consobrinus. Van Denburgh (1896: 341) mentioned specimens of "*S. consobrinus*" from "... Upper Rucker Canyon in the Chiricahua Mountains ...," where *S. virgatus* occurs but *S. u. consobrinus* does not. Van Denburgh and Slevin (1913: 405) listed California Acad. Sci. 35037-35067 as specimens of "*S. consobrinus*" from "... near Paradise in the Chiricahua Mts. ...," most of which Cole (1963) subsequently identified as *S. virgatus*. Van Denburgh (1922: 294) apparently referred to the same specimens again, as indicated by the localities listed for "*S. consobrinus*." Gloyd (1937: 112) mentioned lizards that he referred to *S. u. consobrinus* that were "... commonly seen ... on boulders at the sides of the road to the Turkey Creek Ranger Station in the Chiricahua Mountains", where it is now known that *S. virgatus* abounds (Duellman, 1955; Cole, 1963).

• **REMARKS.** At particular localities, depending on the local ecology, the lowermost (elevationally) distributional limit of *S. virgatus* is closely approached by the uppermost distributional limit of *Sceloporus undulatus consobrinus*. These two species, which previously were considered conspecific, exhibit a complex interdigitation of ranges, but are apparently allopatric as a result of their specific habitat "preferences." Since the known ranges are separated by as little as ca. one mile in some areas, these species might occur sympatrically in an area or areas where the local ecology has been recently disturbed.

• **ETYMOLOGY.** The specific epithet (*virgatus*) is Latin, meaning "of twigs" or "striped." Presumably it is in reference to the longitudinal body stripes, which are strikingly developed in this species.

COMMENT

Mr. Tim Walker obtained a hatchling male (Univ. Arizona Zool. 16587) at 1½ miles southwest of Yecora, Sonora, Mexico, on 29 September 1966. While from within the expected range of the species (Cole, 1963: 422), this specimen extends the known range southward in the Sierra Madre Occidental within Sonora.

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